PROTECTION OF BIODIVERSITY IN THE AGRICULTURAL ACT OF THE FEDERAL REPUBLIC OF GERMANY

This article focuses on the Agricultural Act of the Federal Republic of Germany. In the discussion the existing and relevant regulations that serve to protect biodiversity are examined. Firstly, the main issues and challenges of the Agricultural Act are identified. The core question here is how ecological common goods such as soil, water, air and climate and the effective protection of biodiversity, can be successfully protected, despite the land being used for agriculture. Article 20a of the Basic Law of Germany could provide an answer as it states, that a ‘State goal’ is to protect the ‘natural foundations of life’. Thus, the national legislature may be obliged to regulate the activities of the predominantly private operators in agriculture, as they have a direct impact on the ecological common goods listed above. The current gaps in the Agricultural Act are then specified and, in this context, the principle of ‘Good Professional Practice’ is discussed. This example shows that mere principles, as they exist today in the German legal system, are too vague and ineffective. Therefore, it is of crucial importance to formulate the requirements for agricultural land use as directly applicable obligations and the term ‘Good Professional Practice’ must be expanded on with concrete and binding content. Finally, suggestions are made as to how the Agriculture Act can achieve the protection of biodiversity more effectively. For example, the Fertilizer Act could be transferred to the Agriculture Act as well as the regulations concerning the use of plant protection products on agricultural land.

Keywords: Federal Republic of Germany; environmental protection; biodiversity; climate change; agricultural land use in Germany; agricultural act; German basic law; principles of ‘good professional practice’; education and training; preventive controls.

Introduction

In Germany, agricultural land use takes up half of the German national territory. However, fertilizers, pesticides and ammonia also affect other areas in Germany and have an impact on for example forests, protected areas, unused biotopes and bodies of water. These affected areas are therefore particularly influenced by agriculture and have a significant impact on the ecosystem and biodiversity. Furthermore, there are ver
few areas, which are either unused or exist in their natural state. This article focuses on how the protection of ecological common goods, and especially the protection of biodiversity can be achieved, despite agricultural land use.

**The Key Framework**

The most important question in this context is how the protection of ecological common goods such as soil, water, air and climate and, with this, the effective protection of biodiversity can be achieved in the best possible way, despite agricultural land use. Some of the answers can be found in the Basic Law of Germany. Article 20a of the Basic Law of Germany states the ‘State goal’ is that ‘natural foundations of life’ are to be protected. In order to effectively achieve this national goal, the legislature must regulate the activities of the predominantly private operators in agriculture, as they have a direct impact on the ecological common goods listed above. These environmental resources cannot be owned exclusively and controlled by the market. They cannot be allocated individually. They are there for everyone. Moreover, the question how to deal with them also affects future generations, and their destruction is irreversible.

In 1991 the Federal Consortium for Nature Protection, Landscape Conservation and Regeneration demanded long-term protection of all biotopes and landscape components of ecological, natural, cultural, and historical value, as well as the creation of a large-scale and close-meshed network of biotopes and diverse landscape structures. Since 1992, Art. 10 of the Habitats Directive states that ‘member States shall endeavour, where they consider it necessary in their land-use planning and development policies and, in particular, with a view to improving the ecological coherence of the Natura 2000 network, to encourage the management of features of the landscape which are of major importance for wild fauna and flora’. Biodiversity-preserving landscape management may not have been an agricultural activity in the narrower sense in the past, but in today’s situation it is part of the responsibilities of agricultural farms and holdings.

The biodiversity-preserving landscape maintenance goes beyond the nature conservation approaches that were common in the past. Today it is understood and seen as a vital part of any agricultural activity and thus, part of the job of an agricultural farm or holding.

Until now, central aspects such as structural diversity, the importance of corridors and buffer zones and the question of the representation of certain species or commu-
nities within a natural area have not received sufficient legal attention. The ecological balance of agricultural land, including biodiversity, therefore requires interdisciplinary cooperation between agricultural experts, biologists, and landscape ecologists. The balancing of biological diversity must be based on the requirement of minimum values for site-typical, semi-natural habitats with a demonstrably high biodiversity value. From an agricultural point of view, a particular challenge is whether the sometimes extremely long-term processes (such as the change in the humus content of the soil as a prerequisite for plant biodiversity) can be mapped with sufficient accuracy using the indicators now being discussed.7

Materials and Research Methods
The research is based on the laws of Germany and the main theoretical approaches are set out in the works of Czybulka, Martinez, Kuck, Oppermann, Muckel, and others. Research methods such as analysis, synthesis, induction, deduction, descriptive, formal legal and comparative legal methods were used to reveal the theoretical and normative base of this study, formulate, and substantiate the conclusions reflected in it.

Research results

1. Measures enhancing biodiversity
Biodiversity needs space to develop. In Germany this space is not sufficiently available due to an intensive use of land throughout the country.8 With this in mind, the following priorities could help balance the need to preserve biodiversity on one hand and the agricultural usage of land on the other hand.

• Remaining areas of the former natural landscape such as moors need to be preserved.
• Semi-cultivated landscapes (heathland, nutrient-poor grassland with numerous endangered plant and animal species) are to be maintained permanently through traditional use, above all (sheep) grazing.
• Part of the agricultural land, primarily grassland, is to be cultivated with reduced intensity. The restoration of flowering grassland in highly productive milk production areas is essential. Without the restoration of traditional ‘flower meadows’ on a sufficient scale (also fragmentary as pathways, etc.) there will be no recovery of insect populations.
• The same procedure is to be followed with selected arable land, which – preferably on limestone or sandy soil – is farmed without pesticides and with a lower expected yield.
• The use of agrochemicals with severe harmful effects on animal species worthy of protection, for example, insects (neonicotinoids), must be ended. The risk assessment for the authorization of such plant protection products must be adapted to the new findings.9

• In the open country sufficient ecological compensation conservation areas are to be created, such as fallow and flowering areas, buffer strips and landscape elements (small bodies of water, hedges and coppice and path edges). This also allows the field size to be reduced to a level that promotes biodiversity. Noticeable effects require a proportion of at least 10%. Large-scale farms must provide habitat for accompanying species on small areas such as field edges and unfavorably shaped plots of land, refrain from excessive “field edge hygiene” and tolerate (usually exaggerated) risks of unwanted species immigrating.

• Perennial and site-specific fallow land is of paramount importance for the preservation of biodiversity in arable landscapes.\(^\text{10}\)

• Biotopes and landscape elements are to be protected against negative influences from soil management.

• Species in need of protection are to be taken into account during cultivation of arable landscapes.\(^\text{11}\)

• Surface waters are to be protected from emissions of all kinds (phosphorus and nitrogen fertilizers, drift of pesticides).

• A more natural water balance is to be established. When it comes to pumping water out of the landscape to create optimal conditions for arable farming, a rethink is required due to climate change.

• A strong reduction in ammonia (NH3) emissions of 680,000 tons per year is required, resulting in nationwide eutrophication.

These measures primarily serve to protect flora and fauna. Moreover, these measures have positive effects on the beauty and recreational suitability of the landscape, and they contribute to reducing wind erosion and protecting water bodies.

A modern agricultural act must encompass the measures above to ensure that not only is biodiversity kept at its current level but that it also continues to increase. It is of crucial importance that these measures are included in the Agricultural Act for various reasons. Farmers need to know exactly which rules apply to them. Currently, their obligations are allocated in nature conservation law instead. Farmers, agricultural holdings, and their specialist authorities take regulations rather seriously, but the law has to be allocated in an act addressing them directly. Moreover, the cause for biodiversity loss is agricultural land use and therefore the obligations of how biodiversity may be preserved effectively have to be included in the Agricultural Act.

Only if agricultural land use complies with certain basic requirements regulated in the Agricultural Act, the measures above can be achieved. Incentives such as financial benefits could be considered, e.g., for nurturing management of semi-cultivated landscapes or of species-rich grassland for dairy farms in the low mountain range.\(^\text{12}\)

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2. Obligations in agricultural land use and animal husbandry

a) Clear guidelines

The disastrous effects of agriculture on the environment and biodiversity require legal measures that have been repeatedly formulated by scientists but have not been taken up by politicians.13

The principles of ‘Good Professional Practice’ place some requirements on agricultural land use to ensure environmental protection and nature conservation. In the German legal system ‘Good Professional Practice’ describes a concept of conventional agriculture that states ‘that for example the use of fertilizers and plant protection products may only be carried out in accordance with applicable law, the latest and recognized application rules and in compliance with the principles of integrated farming’14. However, as mere principles they are too vague and therefore weak in their effect.15 The requirements for agricultural land use to protect natural and environmental assets and animal welfare must be formulated as concrete, directly applicable obligations. Therefore, the term ‘Good Professional Practice’ must be expanded on with concrete and binding content. These principles must be replaced by directly applicable basic obligations. It must be clear to the farmer what he has to do or not to do and where he can get support. To this end it is important to distinguish between general basic obligations and specific obligations for farmers. While general basic obligations apply to all farmers, specific obligations apply only to those farming in particularly polluted areas or development areas. The fulfillment of these obligations must be as well a prerequisite for any national or European funding as well as compensation payments.17

b) General Basic Obligations

aa) Compliance with ‘Good Professional Practice’

Regulations on the type of agricultural land use (e.g. soil protection, nature conservation, water protection and requirements for livestock management) are particularly suitable for inclusion in the Agriculture Act, insofar as they have an impact on natural and environmental assets. Furthermore, the Fertilizer Act should be transferred to the Agriculture Act as well as the regulations concerning the use of plant protection products on agricultural land. On the other hand, the planning and technical requirements for livestock facilities should remain in the Construction Planning Law and Emission Control Legislation.
The general basic obligations can be systematized as follows:

- Prohibition of e.g. deployment of impermissible agrochemicals, grassland plowing, ruthless “ditch maintenance” with death of all amphibians, etc.
- Regulations on gentle cultivation, care and harvesting measures, for example meadow mowing with moderate speed which enables animals to escape.
- Regulations on the use of technical facilities and procedures to reduce ammonia emissions, such as exhaust air filters for stables and gentle method of spreading liquid manure.
- Regulations providing space for necessary structural elements
- Regulations concerning the rededication of partial areas in favor of traditional and less profitable farming methods.
- Changes in moisture conditions, in particular increases in the groundwater level in grassland areas, are to be tolerated if this is necessary to preserve the basis of life for species in need of protection.

The regulations mentioned under the first two points do not require any financial compensation. For the following points subsidies can be considered.\(^{18}\)

bb) Obligations to adapt to climate change

Climate protection measures are essentially prepared via the climate protection laws and their implementation programs. The rules for adaptation to climate change could be laid down in the Agriculture Act. The adaptation measures are not only in the self-interest of the farmers, but also in the interest of society. Therefore, a general basic obligation to adapt to climate change should be provided for by law (§ 3 Abs. 2 Nr. 2 der 12 BImSchV and Anl. 3 Ziff. 1.6 UVPG; § 6 Abs. 1 Nr. 5 WHG, § 1 Abs. 5 BauGB; § 2 Abs. 2 Nr. 6 ROG).

c) Education and training

So far, agricultural activity does not legally require any agricultural training. Although most farmers have an agricultural training, the requirements for further training are minimal. Therefore, an obligation for further training regulated by the Agricultural Act, is necessary.

State law stipulates that the goals and tasks of nature conservation and landscape management must be taken into account as part of educational training and further education. In particular, the consequences of nitrogen input, the importance of crop rotation decisions and the effects of pesticide use and other production-integrated measures on species richness and soil life must be taught.\(^{19}\) Such matters must also be the subject of basic and advanced training for farmers.

c) Specific Obligations for designated polluted and development Areas

Obligations may arise for polluted areas and development areas that go beyond the general basic obligations. A generalized approach may be followed here, which means that the law regulates specific obligations for such areas. Alternatively, it is also possible that measures are laid down in local regulations.

Biosphere reserves are particularly suitable for development areas because of the objectives anchored in art. 25 I no. 3 and 4 of the Act on Nature Conservation and Landscape Management. Art. 25 I no. 3 and 4 Article 25, states that ‘Biosphere reserves

\(^{18}\)Ibid.

are areas that are to be protected and developed in a consistent way and that [...] 3. serve the primary purpose of conserving, developing, or restoring landscapes shaped by traditional, diverse forms of use, along with their species and biotope diversity as evolved over time, including wild forms and formerly cultivated forms of commercially used or usable animal and plant species, and 4. illustrate ways of developing and testing forms of economic activity that are especially conserving of natural resources.

Specific obligations in these areas may lead to financial compensation payments for reasons of proportionality or equity.\textsuperscript{20}

d) Enforcement of basic obligations through preventive controls

As agriculture can cause considerable damage to the environment and biodiversity, preventive controls appear appropriate and proportionate.

An existing preventive control option is the impact assessment in Natura 2000 areas. However, this is hardly used in Germany due to an interpretation contrary to European Union law. It ties in with the concept of the project. In consistent case law, the ECJ sees agricultural management activities, most recently also with regard to grazing and fertilization,\textsuperscript{21} as a project and thus requires an impact assessment if impairments to the protection goals of the Natura 2000 area cannot be ruled out with certainty. A clarification in the Agriculture Act that conforms to European law would be useful here.\textsuperscript{22}

\textbf{Discussion and Conclusion}

The current German Agriculture Act dates back to the year 1955 and it is still based on the idea of agricultural structures of the 1950s. The law is outdated and has little impact on the current issues of today’s agriculture. Under the pretext of market freedom or a lack of legislative competence, the legislature has not yet managed to define the tasks of agriculture regarding its ecological responsibility as it is defined in Art. 20a of the Basic Law as a state objective. The legislature failed to recognize that agriculture itself is based on biological processes and is therefore completely dependent on an ecologically intact environment. Environmental responsibility is thus an integral part of farming and not an extraneous element imposed on it. Agriculture can only be defined as sustainable agriculture because unsustainable land management will lead to ecological and economic self-destruction. In recent decades, German agriculture has shown that it cannot cope with this task. Therefore, the legislature needs to actively regulate and manage this ecological responsibility for agriculture through coherent agri-environmental law. This can be effectively achieved through a new Agricultural Act. Moreover, Germany will be obliged to implement the EU’s Common Agricultural Policy\textsuperscript{23} which will come into force in 2023. As a result, the German legislator will be obliged to regulate uniform and nationwide ecological key points of agriculture.


\textsuperscript{21}C-293/17 and C-294/17.

\textsuperscript{22}Martinez J. Landwirtschaft und Umweltschutz. 2020. DVBl. S. 1186, 1190.

Сандра Ингелькофер, PhD, преподаватель Школы Права Университета Бирмингем (г. Бирмингем, Великобритания): Защита биоразнообразия в Законе о сельском хозяйстве Федеративной Республики Германии.

Данная статья посвящена законодательству Федеративной Республики Германии о сельском хозяйстве. Повестка сохранения биоразнообразия становится все более актуальной в мире в условиях его резкого сокращения и регулирование государств в сфере защиты биоразнообразия значительно пересматривается в последние годы. Автор определил основные проблемы в Германии по данному вопросу и законодательства о сельском хозяйстве, кроме того разъясняет, как можно успешно защитить общие экологические блага, такие как почва, вода, воздух и климат, а также обеспечить эффективную защиту биоразнообразии, несмотря на то, что земля используется для сельского хозяйства. Статья 20а основного закона Германии регламентирует основные понятия, подчеркивая, что «целью государства» является защита «естественных основ жизни». Таким образом, национальный законодательный орган обязан регулировать деятельность преимущественно...
частных операторов в сельском хозяйстве, поскольку они имеют непосредственное влияние на экологические общие блага, перечисленные выше. Кроме того, **но-визна** результатов исследования заключается в том, что впервые указываются существующие пробелы в законе о сельском хозяйстве Германии, и в этом контексте обсуждается принцип «надлежащей профессиональной практики». Этот пример показывает, что простые принципы в том виде, в каком они существуют сегодня в правовой системе Германии, слишком расплывчаты и неэффективны. Поэтому крайне важно сформулировать требования к землепользованию в качестве непосредственно применимых обязательств, а термин «надлежащая профессиональная практика» должен быть расширен конкретным и обязательным содержанием. В заключении вносятся предложения относительно того, как закон о сельском хозяйстве может обеспечить более эффективную защиту биоразнообразия. Автор в заключении основное внимание уделяет тому, как можно обеспечить защиту общих экологических благ, и особенно защиту биоразнообразия, несмотря на использование сельскохозяйственных земель.

**Ключевые слова:** ФРГ; защита окружающей среды; биоразнообразие; изменение климата; использование сельскохозяйственных земель в Германии; Закон о сельском хозяйстве; Основной закон Германии; принципы «Надлежащей профессиональной практики»; образование и обучение; превентивный контроль.

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